

What is claimed is:

B3 ADP

1. An implantable system for drug delivery in vascular tissue, the system comprising
a reservoir comprising porous linked fibrous biomaterial having a plurality of voids
of a predetermined mean void size effective for stimulating angiogenesis in
said reservoir from the vascular tissue.
2. The implantable system for drug delivery of claim 1 additionally comprising
a biodegradable matrix dispersed within said voids; and
at least one drug dispersed within said matrix.
3. A reservoir for coupling a cell culture to vascular tissue in which the reservoir may be
implanted, the reservoir comprising
a sealable interior chamber for containing a cell culture, said chamber having a
porous wall, said wall comprising linked fibrous biomaterial having a plurality
of voids of a predetermined mean void size effective for inhibiting angiogenesis
in said wall from the vascular tissue; and
a porous linked fibrous biomaterial outer coat having a plurality of voids of a
predetermined mean void size effective for stimulating angiogenesis in said
reservoir from the vascular tissue, said outer coat substantially completely
surrounding said sealable interior chamber wall.
4. A method for making a system for drug delivery for implantation in vascular tissue, the
method comprising
obtaining a reservoir comprising porous linked fibrous biomaterial having a plurality
of voids of a predetermined mean void size effective for stimulating
angiogenesis in said reservoir from the vascular tissue;
providing a biodegradable matrix;

7 dispersing a drug to be delivered in said biodegradable matrix to form a drug
8 delivery matrix; and
9 dispersing said drug delivery matrix within said voids to make a system for drug
10 delivery.

1 5. An infection shield for a catheter intended for placement through skin and subcutaneous
2 tissue, the shield comprising

3 a substantially cylindrically shaped catheter seal for substantially circumferentially
4 surrounding the catheter, the seal comprising porous linked fibrous biomateri-
5 al having a plurality of voids of a predetermined mean void size effective for
6 inhibiting angiogenesis from the skin and subcutaneous tissue; and
7 a tissue cuff circumferentially surrounding said catheter seal, said cuff comprising
8 porous linked fibrous biomaterial having a plurality of voids of a predeter-
9 mined mean void size effective for stimulating angiogenesis in said cuff from
10 the skin and subcutaneous tissue.

1 6. The infection shield of claim 5 wherein said fibrous biomaterial comprises silica.